



TECHNICAL NOTE

AGRONOMY TECHNICAL NOTE NO. 13

AUGUST 1, 2001

**CROP RESIDUE AND GROWING GREEN COVER IN
FALL SEEDED SMALL GRAIN FOR FOOD SECURITY ACT (FSA)
COMPLIANCE PLANNING
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Prediction models for both wind and water erosion assume that there is a growing crop with a fall canopy, and the old crop residue present in the field is further anchored by the growing crop. In addition, the models also assume regrowth, starting in March, provides early spring erosion protection. Over the last several years, winter wheat survival has been poor on fields with low amounts of surface residue. The use of higher yielding, less winter hardy varieties has been increasing in the state over the last few years. The use of less winter hardy varieties has lead to a review of the credit for growing green cover in fall seeded small grain.

1. All FSA plans involving crop residue management will continue to rely on previous crop residue for primary erosion control. The following guidelines are to be used for checking application and not for planning. All FSA plans are to be developed with the residue requirements that meet the desired level of erosion control for a conservation system in the South Dakota Technical Guide. Implementation of this credit system is permitted in making FSA status reviews only when old crop residue levels meet or exceed 50 percent of the required level. This policy is applicable to both wind and water erosion control.
2. For compliance documentation 500 data points will be gathered using the line transect method.
3. A base level of 10 percent green cover must be present in all cases before additional credit is allowed. Because this level of canopy cover was assumed in the erosion prediction model, only cover in excess of 10 percent will be considered.
4. October 15th will be the target date for evaluating green canopy cover in fall seeded small grains. An additional 1 percent will be added to the base level of 10 percent for each day after October 20th.

5. The measurement of green canopy cover will be made using the line transect method as used for measuring residue in accordance with the National Agronomy Manual (Subpart E, Part 503.53).
6. Counties that have given credit for an earlier planting date in their conservation systems will use the planned residue levels documented before any credit was given.
7. This procedure will not be used in addition to a variance for an individual producer.
8. In compliance systems, where the growing green cover calculation is needed, only use small grain varieties with a winter hardiness rating of good or excellent. Acceptable varieties, as well as, additional characteristics are listed in the most recent Extension Publication EC 774.
9. If winter hardy varieties are not planted and the growing credit is necessary for compliance an additional spring field visit will be scheduled to assess winter survival. If the field has winter killed (greater than 50 percent) the producer will be in noncompliance.

Example Calculations:

Example A. Residue required in the Alternative Conservation System (ACS) is 20 percent. Residue measured in the field after planting is seven percent. This producer is not actively applying. Seven percent does not meet the 50 percent requirement, which is 10 percent (15 percent sampling error of 7 percent = 6-8 percent).

Example B. Residue required in the ACS is 20 percent. Residue measured in the field after planting, using a minimum of 500 data points, is found to be 10 percent. Since this is 50 percent of the required amount, a second field visit is needed to determine canopy cover. Green canopy cover measured October 16th is 40 percent, therefore, this producer is actively applying at this time.

40 percent green canopy - 10 percent base = 30 percent additional green canopy

30 percent/2 = 15 percent additional green canopy credit

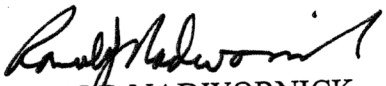
10 percent residue
+15 percent green canopy
20 percent (50 percent is the maximum amount green canopy can replace the required residue.)

Example C. Residue required in the ACS is 20 percent. Residue measured in the field after planting, using a minimum of 500 data points, is found to be 10 percent. Since this is 50 percent of the required amount, a second field visit is needed to determine canopy cover. Green canopy cover measured October 30th is 40 percent; therefore, this producer is actively applying at this time.

40 percent green canopy - 20 percent base (10 percent base line + 10 percent for 10 days after October 20th) = 20 percent additional green canopy

20 percent/2 = 10 percent additional green canopy credit

10 percent residue
+10 percent green canopy
20 percent


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